## Methotrexate with Leucovorin Rescue

At the Clinical Center referred to as methodrexate (meth-o-TREX-ate) and leucovorin (loo-koe-VOR-in).

**How Given:** Methotrexate is given intravenously (by vein). Leucovorin is

given either intravenously (by vein) or orally (by mouth).

**Drug Action:** Methotrexate blocks a protein that cancer cells need to copy

> and repair DNA. DNA is the genetic material in cells used to make new cells. Leucovorin rescues healthy cells from damage

caused by high doses of methotrexate.

Side Effects: 1. Lip, mouth, throat, and rectal sores can occur within 7 days after treatment.

> 2. Bone marrow effects can include a temporary decrease in white blood cells, platelets, and red blood cells. These usually occur within 7 days after treatment.

- 3. Nausea and vomiting can occur.
- 4. Stomach cramps and diarrhea can occur.
- 5. Skin changes can occur. These include increased sensitivity to sunlight, red rash, and dry itchy skin.
- 6. Kidney damage can occur. Tests will be done to monitor for this effect.
- 7. Temporary hair thinning or hair loss can occur.

## Special Instructions:

1. Leucovorin is used to decrease the side effects of methotrexate. It is extremely important that you take leucovorin exactly as directed.

- 2. Do not take any prescription or over-the-counter medications without talking to your NIH doctor. These include vitamins; herbal treatments; and nose drops, cold, flu, fever, headache, pain, hay fever, or allergy medications.
- 3. Protect skin from sun exposure. Wear protective clothing and use a sunscreen with an SPF rating of 15 or more when in the sun.
- 4. Drink 8 to 10 glasses of fluid a day after treatment.
- 5. Call your NIH doctor or nurse if you
  - miss a dose of leucovorin or are unable to take it because of nausea and vomiting
  - are unable to drink for more than 1 day or unable to eat for more than 2 days after treatment
  - have a temperature of 101.0 °F (38.3 °C) at any time, or have a temperature of at least 100.4 °F (38.0 °C) that lasts for 1 hour or occurs two times in a 24-hour period
  - have any unusual bleeding or bruising
  - have diarrhea for more than 2 days



This information is prepared specifically for patients participating in clinical research at the Warren Grant Magnuson Clinical Center at the National Institutes of Health and is not necessarily applicable to individuals who are patients elsewhere. If you have questions about the information presented here, talk to a member of your healthcare team.

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